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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,824	02/06/2002	Charles E. Romano JR.	83245LMB	8825

7590

10/30/2003

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 10/30/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

CLO-4

**Office Action Summary**

Applicati n N .

10/068,824

Applicant(s)

ROMANO, CHARLES E.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 23-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-22, drawn to an ink recording element, classified in class 428, subclass 32.24.
  - II. Claims 23-36, drawn to a method of printing, classified in class 347, subclass 106.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and of Group II are related as product and process of use.

The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used in a materially different method such as a method of printing with an ink pen.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Ms. Blank on October 22, 2003 a provisional election was made with traverse to prosecute the invention of group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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4. Claims 1-3, 7-15 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. (5,478,631).

Kawano et al. disclose an ink jet recording element having a support and top and bottom hydrophilic absorbing layers on its surface. Both top and bottom layer is formed from an aqueous composition including amphoteric latex, water-soluble polymer and pigment (see col. 7, lines 3-21). As water-soluble polymers, the reference discloses one or more of a group including acetoacetylated polyvinyl alcohol, polyvinyl pyrrolidone, and gelatin. The layers may also contain vinyl latexes and polyurethane resin (see col. 6, lines 1-48). The reference discloses layer weight per area as opposed to layer thicknesses (see col. 9, lines 18-24). The bottom layer may be further divided to form an intermediate layer and a lowest layer (see col. 7, lines 52-55). The ink receptive layers may contain a dye-fixing agent, i.e. mordant (see col. 6, lines 48-61).

Since the reference states that the group of binders including polyurethane may be used "as far as the effects of the present invention are not lost," it would have been obvious to one of ordinary skill in the art to use less of these binders than of the water-soluble high polymer, a required component in each layer (see col. 6, lines 33-36). Consequently, the ratio of polyurethane to polyvinyl alcohol instantly claimed would have been obvious to one of ordinary skill in the art. It also would have been obvious to one of ordinary skill in the art to determine thicknesses of the layers based upon the coating weights disclosed by the reference and the performance of the medium in areas of surface strength, bleeding and thinning, color reproduction, and water resistance, i.e. the properties identified by Kawano et al.

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5. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. as applied to claims 1-3, 7-15 and 19-22 above, and further in view of Tomizawa et al. (6,224,971). The secondary reference discloses an ink jet recording sheet including acetoacetylated polyvinyl alcohol. The primary reference does not disclose the properties of the disclosed acetoacetylated polyvinyl alcohol used therein, therefore, it is appropriate to look elsewhere in the same art area for a particular acetoacetylated polyvinyl alcohol to use in the invention of the primary reference. Tomizawa et al. disclose an acetoacetylated polyvinyl alcohol with properties as recited by the instant claims (see col. 2, lines 46-67) although the reference is silent with respect to molecular weight. Both applicant and the secondary reference use a commercially available product from the Gohsefimer Z200 series of Nippon Gohsei Kagaku Kogyo Co. The examiner was unable to determine the molecular weights of each of these polymers. However, they are in the same commercial series of the same company, and have the same degree of saponification and substitution. Therefore, it would have been obvious to one of ordinary skill in the art to determine the particular polyvinyl alcohol from the commercially available series of polymers identified by the prior art as useful in ink jet recording media applications in order to achieve the goals set forth by the primary reference.

6. Claims 1 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. as applied to claims 1-3, 7-15, 19-22 above, and further in view of Ueda et al. (EP 791,475). As with the polyvinyl alcohol, the primary reference is also silent with respect to particular gelatin that may be used. Therefore, Ueda et al. is cited

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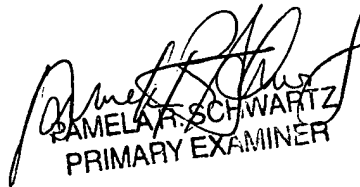
for teaching of gelatin that is used in the ink jet recording art (see page 3). The secondary reference teaches that gelatins may be pigskin, cow skin, or cow bone, and may be lime-processed, acid processed, or gelatin derivatives. Based upon this teaching it would have been obvious to one of ordinary skill in the art to use a gelatin previously taught for use in ink jet recording media as the gelatin of the primary reference.

7. The examiner was unable to find a copy of EP 1110745 in the file so this reference has not been considered. The examiner requests that the document be resubmitted, at which time it will be fully considered.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Schwartz whose telephone number is 703-308-2424. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

PRSchwartz  
October 28, 2003

  
PAMELA R. SCHWARTZ  
PRIMARY EXAMINER